University of Wisconsin
Department of Genetics

Madison, Wisconsin
March 17, 1948/

Dear Jacques,

My work has reached the point where it is imperative that I investiga the lactase content of E. coli K-12. I would appreciate very much heari from you any details of the methods you used successfully to prepare active cell-free extracts of coli ML. Also, have you made any endeavour on the K-12 strains that I sent you? There are very few satisfactory reports in the literature on the preparation of bacterial disaccharase.

In my last letter, I mentioned that I may have sent you W-169 and W-172. I hope that this is so as I have lost these interesting cultures If you did receive them, would you be so kind as to send transfers back to me?

March 22. Since writing the above, I have prepared an active crude extract from mutant W-254 which is lactose-positive, galactose negative This mutant accumulated monose (presumably galactose) during the fermentation of lactose, so that the utilization of lactose can be followed by Barfoed's procedure-- reduction of copper in acetic ac solution. The extract was prepared by grinding 30 g. wet Sharples paste of the cells with 60 g. pyrex powder in a conical pyrex mill, and extracting with saline. The crude extract is very active, and I am setting out to purif it, as well as to see whether other methods of extraction more applicab to large scale production can be developed. I am fortunate h at Wisconsin in having nearly pilot plant facilities for the production of cells if need be. I suppose at the Institut you have the same. I am now all the more interested to learn what your procedures have been.

Yours sincerely
Joshua Lederberg

FOLD SIDES OVER AND THEN FOLD BOTTOM UP AND SEAL.
NO OTHER ENVELOPE SHOULD BE USED.